

# POWERLINE

The Voice of the On-Site Power Generating Industry



## Why Your Power System May Leave You In the Dark



Plus:

**Diverting Digital Data  
Disasters with Diesel**

**United Alloy, Inc. Member Profile**

**Recognizing EGSA Talent...  
Tracking Valuable Member Contributions**



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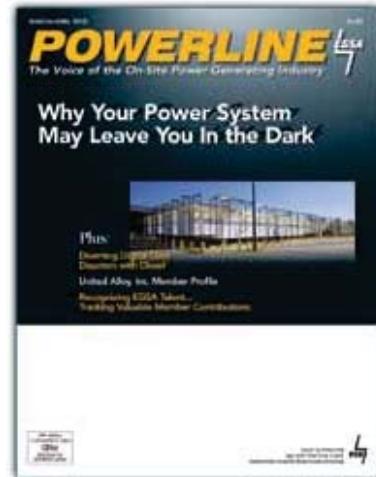
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### POWER-GEN International 2012

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## Conferences

### EGSA 2012 Fall Technical & Marketing Conference

September 9-11, 2012; Milwaukee, WI

The Fall Technical and Marketing Conference is held during September and is designed to focus on technical and marketing issues. Registration information will be available online in July 2012 at [www.EGSA.org](http://www.EGSA.org) or by calling (561) 750-5575.

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**Michael Pope**  
2012 EGSA President  
Michael.Pope@clariant.com

## Volunteerism is alive and well in EGSA

An ex-Soviet Army Major was my college physics instructor in England. He survived the tough army experience, he said, due to his life-long credo: "Never hurry, never worry and NEVER volunteer!" Fortunately, he was a more capable instructor of physics than of life lessons.

Volunteerism is an essential asset to organizations like EGSA. In fact, EGSA was founded by a small group of individuals that worked for several generator set manufacturers. They had the vision that the industry and its participants could benefit from such an Association. No one asked them to do this; they simply took the initiative and got it started. If they could see what the continuation of voluntary service has accomplished since they started in 1965, I'm sure the expressions on their faces would be "Shock and Awe".

Does anyone work just 8 hours a day now? The unwritten corporate culture these days is to do more with less "head-count" and most of us feel the pressure of not enough hours in the day. It can be really difficult to find the extra personal time to volunteer, even when the benefits are numerous. Selecting the right volunteer opportunity can enrich us both personally and professionally in making new business contacts and friends. It can make connections to the local community, create new learning skills or sharpen old ones. Volunteering can even provide a career boost in the right circumstances.

The best volunteer experiences benefit both the volunteer and the organization. For example, several of the EGSA Membership commitments, such as our Vision, Mission and Goals all include subject matter that can be translated seamlessly into the core values of Volunteerism...such as "educate", "have fun" or "foster an environment to unite people and share knowledge."

We have a unique corporate culture that recognizes and values volunteerism. How often do you have fun, gain knowledge and personal satisfaction when carrying out the EGSA Mission or achieving an EGSA goal? I suspect that this is at

the heart of our Association's survival ...it's why EGSA has a 47-year history and why it will continue to evolve into the 21st Century.

### We Can Always Do Better!

Statisticians tell us that generally about 80% of an organization's business comes from 20% of its customers. Most voluntary organizations find that 80% of its work is accomplished by 20% of its members.

From my experience, and we are all somewhat guilty of this, we are quick to recognize and commend the folks who donate money in a charitable way. However, we do not always recognize the people who donate their time, and time is one of our most valuable assets.

Recognizing individual volunteers and their contributions to EGSA is one way to demonstrate a culture that values volunteers.

*"Volunteers  
aren't paid,  
not because  
they are  
worthless,  
but because  
they are  
priceless."*

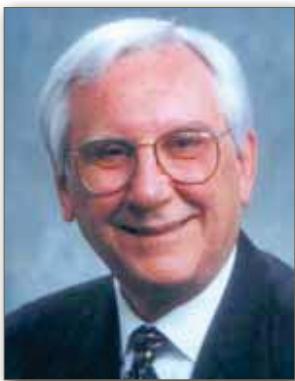
- Anonymous

### Recognizing Talent

The Board of Directors has tasked EGSA Staff to continue to find opportunities to recognize our Members that donate their time to benefit the Association and our Industry. We have compiled a chart that details all volunteer activities that Members have participated in that meet the established criteria to be considered for an EGSA Award or Board of Directors role. This Master List (see page 20) is being unveiled for the first time in this issue of *Powerline* so please take the time to review it. We hope there are no errors or omissions, but would appreciate your kind assistance in communicating it to us if you do find one! Once Members provide essential feedback on the chart, it will be posted to the EGSA website as a living document.

This chart not only recognizes Members who have so graciously donated their time, but it also provides a roadmap to those who have their sights set on a future leadership role in EGSA.

You are likely to have a richer and more enjoyable EGSA experience if you first take some time to identify your goals and interests. After 20 years of EGSA Membership, I can personal-



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EGSA Director  
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# Education & Certification Updates

## EDUCATION UPDATE

Six Schools! You have probably seen a copy of our 2012 On-Site Power Generation School brochure, but you may not have noticed that we are offering six schools this year. This decision to offer six schools was based upon the historically strong demand and an improving economy. In fact, except for eight of the 56 schools we have held since 2000, attendance at each school has been at or near our cap of 40 students. Offering more than six schools could prove to be a challenge. Our volunteer instructors are able to teach due to the generosity of their employers. The instructor's companies give the instructors time away from the office to teach, if it wasn't for the generosity of these employers, the On-Site Power Schools wouldn't be possible.

### EGSA is offering three Basic Schools in 2012:

- February 21-23 – Dallas, TX
- June 12-14 – Rochester, NY
- October 16-18 – Scottsdale, AZ

### EGSA is offering three Advanced Schools in 2012:

- April 23-26 – Atlanta, GA
- August 6-9 – Chicago, IL
- December 10-13 – Orlando, FL\*

\*To be held concurrently with Power-Gen 2012

With our schools filling up as much as 6 weeks in advance of the date they are held, we strongly suggest registering early.

## eLearning

The necessary additional research has been completed and the final presentation has been prepared for the Board of Director's meeting at the Spring Convention in March. The presentation will outline our final recommendations on eLearning including a framework for developing courses to be offered in the future. We have our work cut out for us as respondents to our eLearning survey

suggested 240 topics of interest for our online eLearning program. If our recommendations are approved, we will begin with baby steps by offering a few initial courses and expanding our course list as we go. The availability of these courses online 24/7 is sure to prove beneficial to both the students and the On-Site Power Industry as a whole.

Included in the course list we plan to offer is an "EGSA 101" course that will provide an overview of our organization and outline the benefits of EGSA membership. EGSA 101 will be directed to current and prospective members, we anticipate that this course will be offered at no cost to participants. The second course, "On-Site Power Generation 101" will be a non-technical overview of the on-site power industry, applications, and the equipment used to generate electricity. We feel that this course will be excellent for people who might not benefit from attending our Basic School but who need or want to know more about the industry.

## CERTIFICATION UPDATE

As was mentioned in my last article, with 191 techs taking the exam (147 passed), 2011 proved to be the best year on record since the program was launched in 2006. The previous record was 2008, in which 134 took the exam (116 passed it). Since program launch, 718 techs have taken the exam and 578 have successfully passed.

While we only have January 2012 testing results, 2012 is off to a good start with 14 techs passing the exam. The uptick in testing that began in April of 2011 has become a trend and we are hopeful that it will continue for the rest of this year and into the future.

We appreciate your continuing support! If you have suggestions for, or questions about, the EGSA education programs, please contact George Rowley via an e-mail to [g.rowley@egsa.org](mailto:g.rowley@egsa.org) or by phone at 561-237-5557. ■

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## Codes & Standards

The Annual Cycle for the 2014 Edition of the National Electric Code (NEC) (NFPA 70) began with panel meetings that were held in Hilton Head, SC from January 9th to 21st. Herb Daugherty, retired EGSA Member from ASCO, and I attended on behalf of EGSA to review the "Proposals" submitted.

These proposals are submitted by the general public... providing wording they would like changed, deleted or added to the NEC. These proposals must identify what the author would like changed, how they want it edited and provide substantiation why the change is being requested. The closing date for submitting these proposals was November 4, 2011. Each proposal is discussed by the appropriate panel and a decision is made by the panel concerning the proposal. A majority vote by the panel members (that are present) is needed for each proposal outcome. These proposals are then distributed to the entire registered panel for ballot. For the outcome of a proposal to be approved for further discussion, it must get a two thirds approval from the panel. Once the panel voting is complete, the proposals and the panel decisions are subsequently published. The process does not stop there. The proposer and others are then provided with a comment period concerning the decisions. In this case, all comments must be received by NFPA by October 17, 2012. These comments are to be discussed for a second time in Redondo Beach, CA between November 28 and December 8, 2012. Finally, the comments that survive are voted on at the NFPA Annual Meeting in June of 2013 and then the 2014 NEC is published.

Herb and I are members of Panel 13 of the NEC. (There are 19 Panels in all) Panel 13 is responsible for certain Definitions (Chapter 100 – Definitions). The other chapters that Panel 13 is responsible for are: Article 445 – Generators; Article 480 – Storage batteries; Article 695 – Fire Pumps; Article 700 – Emergency Systems; Article 701 – Legally required Standby Systems; Article 702 – Optional Standby Systems; Article 708 – Critical Operations Power Systems (COPS) and some Annex material relating to the aforementioned articles. We also accepted a request for a new Article – 750, titled Energy Management Systems, which would be an introduction for the "Smart Grid"

that is currently a topic of discussion. Of the 183 proposals that were submitted, the Panel accepted 92 in some form. The Panel also wrote 3 of their own proposals.

**Herb Daugherty, Secretary for Panel 13, added the following to what I have reported:**

- A second attempt at limiting Selective Coordination to above 0.1 seconds was defeated again. There was a proposal requiring that the Fire Pump Automatic Transfer Switch be in the Fire Pump Room and that it be listed for Fire Pump service. This was to conform to the existing requirements of NFPA 20.
- Added new language to Article 445.20 (*Generators*), requiring *Ground Fault Circuit Interrupter Protection on receptacles on 15 kW or smaller, portable generator sets*.
- Added new language to Articles 700, 701 and 702... "Where an outdoor housed generator supplies a building or structure and is equipped with a readily accessible disconnecting means, an additional disconnecting means shall not be required... Shall have the generator disconnecting means within sight of the building or structure served."
- A new schedule for the next revision of 2012 edition of NFPA 99, Health Care Facilities Code was recently received from NFPA. Under the new schedule, public input must be received by June 6, 2012.

Finally, for those of you who are interested in ISO Standards, I received a list of those members for ISO/TC 70, which covers Generator set Standards. There are 42 countries listed as members. Only 12 are listed as "P" or Participating members who can vote. Of these 12 the USA is 1, meanwhile there are 5 from Europe, France, Germany, Italy, Switzerland and the United Kingdom. So we are vastly outvoted by our European counterparts. At the TC 70 meeting in China during October, they agreed to revise the following ISO 8178 Standards: Part 4 Steady State Cycles; Part 5 Test Fuels; Part 7 Engine Family determination; Part 8 Engine Group determination; Part 11 Transient Test Cycle for Mobile Equipment. ■

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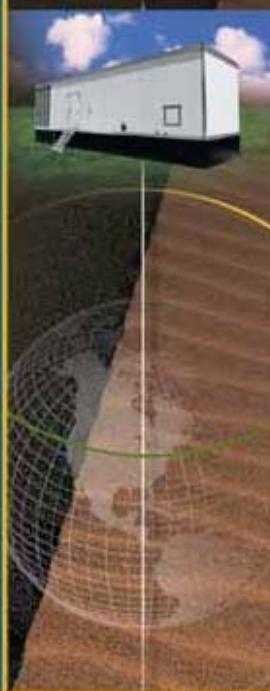
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# Ten Common Reasons Why Your Power System May Leave You In the Dark.

By Jim Ellis & Lisa Phillips, Altorfer Power Systems

## Why are we in the dark? What happened to our generator? Why didn't it start?

Power interruptions and power quality problems are an everyday occurrence. Sources of these problems include heavy utility demands, lightning, fires, earthquakes, ice storms, auto accidents, short circuits, ground faults, human errors and animals. Our 21st century digital society is more dependent than ever on a reliable source of quality electric power. With each passing year our demand for reliable electricity continues to grow, while power interruptions seem to occur more frequently. Power interruptions can cause loss of revenue, impair business operations — or worse — jeopardize human life and safety.

Every owner should understand the common reasons for emergency power system failure and should realize why proper maintenance will help prevent those failures. "A good maintenance program will consist of weekly, monthly, quarterly and annual maintenance items" (NFPA 110). Owner personnel can perform many weekly maintenance items. But a qualified service provider can add great value by performing the higher-level maintenance required at the longer intervals. Qualified service providers are equipped with special tooling, have unique experience, and are trained to detect developing problems in mechanical equipment using their keen senses of sight, touch, and smell. The best service providers are able to offer solutions to satisfy all your needs, as a one safe source, alleviating the headache of dealing with multiple service providers. They can provide professional reporting and documentation to help assure that critical historical recordkeeping is maintained. Let's take a look at ten of the most common problems encountered with power generation equipment in backup or emergency standby applications:

## 1. BATTERY SYSTEM PROBLEMS

"Analysis of emergency generator set failures shows that battery problems cause at least half of all failures to start" (Pocock).

**Over-Extending Battery Service Life:** Most battery failures are attributed to the buildup of crystalline lead sulfate on the battery's lead plates (aka "sulfation"). This is a normal result of battery charging and discharging that worsens if batteries are not maintained at full charge. Batteries that are older, that have been through multiple charge/discharge cycles, or that have not been maintained at full



charge must be replaced periodically. As batteries near the end of their service life, effective performance degrades more rapidly. "Batteries that are only providing 80% of the manufacturer's capacity are considered to be at the end of their service life" (EGSA 100B). Proactive replacement of lead-acid type batteries every three years should be part of an overall maintenance strategy.

**Lack of Routine Battery Maintenance:** Routine maintenance is critical for best battery performance. Connections must be regularly cleaned and tightened. "A battery load test should be performed quarterly" (NFPA 110). It is necessary to monitor the electrolytes in wet lead-acid batteries. Charging depletes the water in the electrolytes, and topping up with distilled or deionized water is required — even under optimum conditions.

**Battery Charger Malfunction:** Modern generator set control systems continuously draw power from the generator set starting battery system. This power must be provided by the generator set static battery charger, or the starting batteries will soon discharge and fail to start the generator when needed. Frequently, battery failure is traced to an open or tripped battery charger circuit breaker. Over- or under-charging of batteries also creates problems. Incorrect charging can be caused by an improperly adjusted battery charger or possibly by an internal battery charger component failure. Proper operation of the battery charger's float and equalize charge features should be verified routinely.

## 2. CONTROL SYSTEM PROBLEMS

**Controls "Not in Auto":** Common issues related to generator set controls are simply not having the master control set for "Auto" (automatic) operation or mistakenly leaving the Emergency Stop Pushbutton depressed. After any activity is performed on or near a unit, always double check to assure that generator set controls are set for automatic operation.

## 3. COOLING SYSTEM PROBLEMS

**Hoses and Belts:** The most common cooling system problems are associated with deteriorating hoses and belts. Hoses on jacket water heaters are especially vulnerable and have a relatively short service life. Hose failure during a run cycle is very likely to cause serious engine failure due to a rapid loss of engine coolant. This risk can be minimized with timely proactive replacement of hoses. Drive belts should be regularly inspected for wear and correct tension. Applications with sets of multiple drive belts should be inspected when the machine is running to assure that all belts in the set are operating uniformly.

**Plugged Radiator Core:** A plugged radiator core, either externally with dust, oil, and debris or internally with corrosion and/or dirty coolant, will cause engine overheating. Radiators

should be inspected regularly for any debris or dirt in or on the radiator core, and the coolant should be monitored regularly to assure cleanliness and correct chemical composition. Engine cooling systems use distilled or de-ionized water mixed with antifreeze containing Supplemental Coolant Additives (SCA's). The coolant mixture should be a minimum of 30% antifreeze to a maximum of 50% antifreeze, depending upon the freeze resistance required. Improper management of the coolant mixture properties can lead to internal radiator core and engine water jacket corrosion and scaling, coolant cavitation, and other harmful engine problems. A typical recommended cooling system service interval is every three years for engines in standby service. Engines with normal glycol-based coolant, should be drained, flushed, and filled with new coolant at this interval. For extended life coolant applications, an SCA booster package is added at the three-year mark, and the drain, flush and refill is performed at a six-year interval. Thermostats, drive belts, and coolant hoses should be replaced when the cooling system is drained and refilled. A coolant sample should be submitted for laboratory analysis on an annual basis to check for contamination and for proper condition of the coolant additives.



#### 4. FUEL SYSTEM PROBLEMS

##### **Contaminated Fuel:**

"It only takes six short months for diesel fuel to become jeopardized, thereby hindering generator performance and

peace of mind when you need it most" (Wohlrb). Today's high-performance diesel engines require a reliable and clean source of fuel. Water is the biggest enemy to diesel fuel and can be introduced from the supplier or simply from normal condensation within the fuel storage tank(s). Keeping tanks topped up with fuel and using fuel stabilizers can help to protect the fuel. When water contamination is present, bacteria or microbial growth in the tank is a threat. Microbial growth, sediment, and particulates can plug engine fuel filters causing a generator engine to starve for fuel. Water or moisture in fuel can damage diesel engines and can affect overall engine performance. A fuel sample should be taken semi-annually and inspected for discoloration and/or abnormal smell, both indications of water contamination and/or presence of organic debris. "A formal fuel quality test shall be performed at least annually using tests approved by ASTM standards" (NFPA 110). Alternatively, annual fuel polishing and tank cleaning are recommended to reverse the degradation process and restore and stabilize the overall quality of the fuel.

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**Out of Fuel:** Nothing stops your standby generator set faster than running out of fuel. You should know how long the standby system will operate when the system tank(s) are full. Monitor the fuel level and calculate how long the system will operate with present fuel levels. Some generator set engines are equipped with “low level shutdown” or “critical fuel level shutdown” lockouts. This is to prevent the fuel system from drawing in air when running out of fuel is eminent. Avoid that sinking feeling in the middle of the night, and make your standby power system more reliable by having the fuel tanks topped off long before they reach empty.



#### 5. AUTOMATIC TRANSFER SWITCH (ATS) OR SWITCHGEAR PROBLEMS

**Controller Issue:** Most ATS controllers today are micro-processor based. System settings, date, and timing functions are often maintained by a small backup battery. The most common preventable issue is a dead backup battery. Annual replacement of the backup battery is a low-cost preventative solution.



**Dirt and Dust Accumulation:** Dirt, dust and moisture can cause malfunctions in the transfer equipment. Dust should be removed annually by wiping and vacuuming. A small space (anti-condensation) heater can prevent accumulation of moisture inside equipment enclosures.

**Loose Connections:** Loose connections increase resistance, causing hot spots. Extreme cases can cause broken connections, short circuits, and even equipment fires. “It is recommended to check at a minimum annually for loose connections with the use of infra-red thermography during an emergency power system load test” (NFPA 110).

**Mechanical Failure:** Automatic transfer switches (ATS's) and switchgear have moving parts. Moving parts can seize if they remain in one position for long periods of time. “It is best to ensure that moving parts will continue to operate smoothly with a monthly exercise that includes electrically operating the transfer switch with a loaded generator run” (NFPA 110). Performing actual outage tests that cause the ATS or switchgear to function will aid in exposing potential problems. Periodic lubrication of bearing points and inspection for electrical contact erosion are essential to good equipment health.

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### 6. CIRCUIT BREAKER PROBLEMS

**Breaker Trip Settings:** Large circuit breakers have adjustable trip settings that must be set to match the loads they are to carry. In new installations or when existing loads have changed, it may be necessary to readjust circuit breaker trip settings to prevent nuisance tripping. This is particularly true when transformers make up all or a part of the circuit load, as a transformer can cause a current surge of up to twenty times its nameplate rating when first energized. Such current surges can easily cause nuisance tripping of incorrectly adjusted circuit breakers.

**Maintenance:** Reliable operation requires planned preventative maintenance. This includes cleaning, adjusting, lubricating, and testing circuit breaker(s). Annual inspection for loose connections is part of a comprehensive maintenance plan.

**Open Circuits:** Other common issues related to circuit breakers are failure to reset tripped breakers or leaving a circuit breaker in the open position. But if a breaker trip has occurred, be sure that the cause of the trip is determined and resolved prior to reclosing the breaker.



### 7. INTAKE/EXHAUST VALVE PROBLEMS

Like the human body, an engine must be able to inhale and exhale. Intake and exhaust valves control this process. Timing of the opening and closing, as well as the proper seal of these valves, is ex-

tremely critical to managing fuel economy and engine operating temperatures. Improperly adjusted valves can fatigue and erode or fracture over time, often with tragic consequences. Debris from a valve failure can flow through the engine and cause damage to some of the most expensive components of the engine: cylinder liners, cylinder heads, turbochargers, pistons, and aftercoolers. Inspection and adjustment of valves and valve operators is recommended after an engine "break-in" period, usually at the first oil change, and then every two years for engines in standby service.

### 8. GENERATOR WINDING PROBLEMS

With all the attention being paid to an engine, one must not forget that the generator end of the machine also needs attention. Depending on the environment, generator windings can become coated with dust, dirt, oil, and grime. Daily temperature fluctuations can allow moisture to condense on windings, in the same way that dew forms on windows of an automobile left outside overnight. Accumulated dirt tends to retain the moisture, and the combination can cause insulation breakdown, loss of insulation resistance, and possibly corrosion of winding metal itself. These, in turn, can lead to a short circuited or a grounded winding. When a generator is heavily loaded, the temperatures in the generator windings can exceed the boiling point of water, causing pockets of moisture to flash into steam. This action can result in a portion of the winding insulation being blown away, allowing a harmful path for electrical current. A costly failure or even life-safety issues can result. These types of failures can cost tens of thousands of dollars to repair and can be avoided with proper maintenance. The root causes of these failures are rarely visible during a cursory inspection. A test of insulation integrity, such as the polarization index, can be used to evaluate the condition of the winding insulation and help determine if there is a harmful buildup of dirt or moisture in the windings. Insulation testing should be done at least annually to establish a trend. When test results indicate insulation deterioration, corrective action can be taken to avoid a major and costly breakdown.



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### 9. LUBRICATION PROBLEMS

Bad things can happen to lubricating oil when an engine is operating, and bad things can happen to lubricating oil when an engine sits idle. A full service, including lubricating oil and filter change and a fuel filter change should be performed annually for generator sets in emergency standby service. Lubricating oil is the "life blood" of an engine, and it has a limited life inside of the engine. As the engine runs, the lubricating oil accumulates and binds contaminants, which could be harmful to the engine if not properly contained. Since standby systems rarely run for very many hours, they are especially vulnerable to the moisture and acids that form in the engine. These contaminants must be neutralized to prevent them from attacking bearings and engine

# Relax...

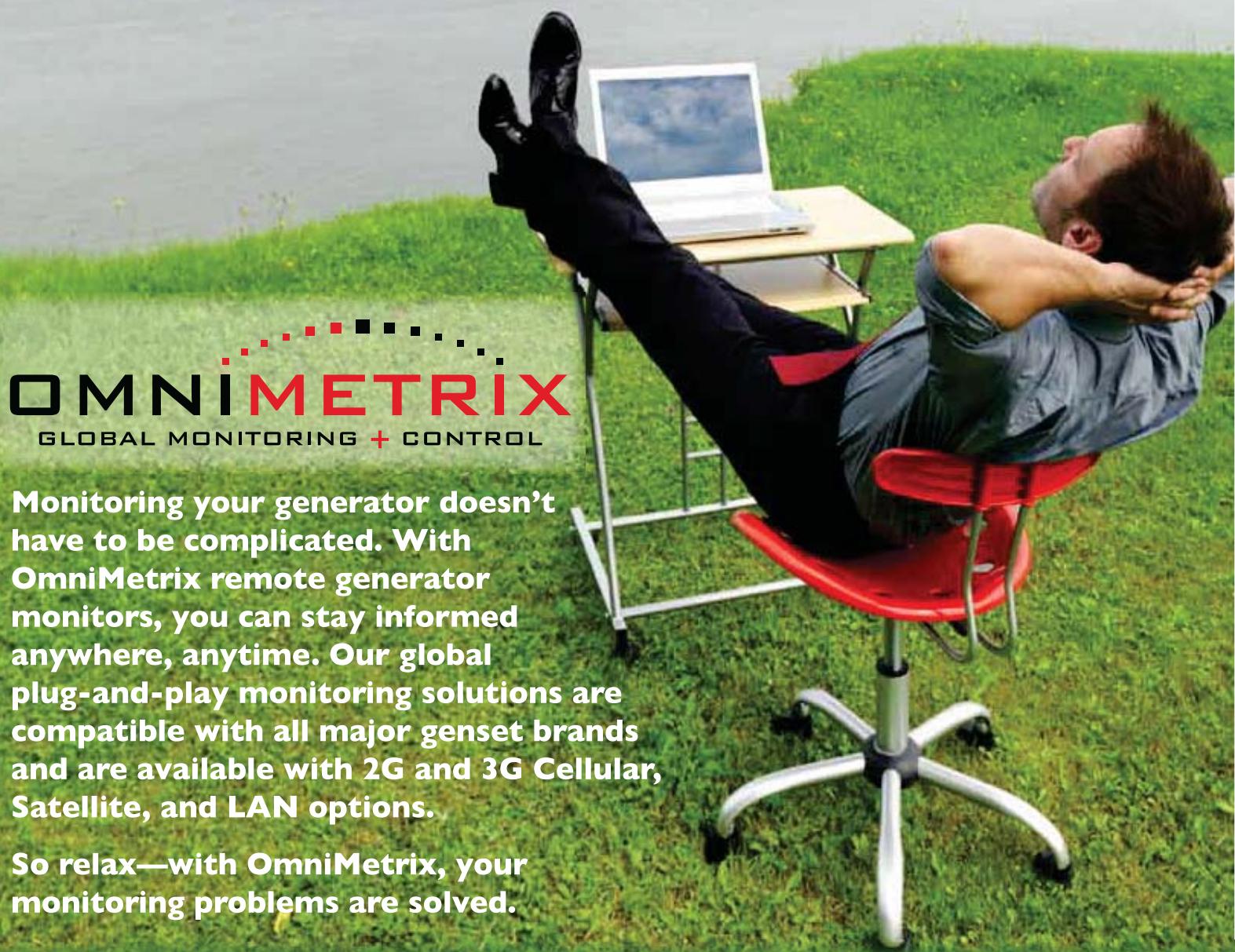
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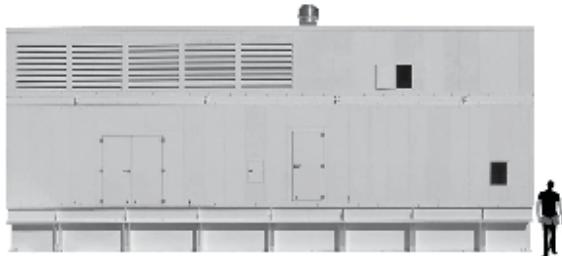
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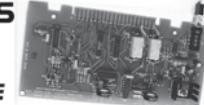
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wear surfaces. Operating an engine with contaminated lubricating oil can be very detrimental to engine components. Buildups of carbon and corrosive damage can occur, which can cause excessive bearing wear, crankshaft damage, wear surface seizure and other severe engine failure. Periodic lubricating oil and oil filter changes are very effective at preventing these problems and extending engine life.

## 10. WET STACKING & CARBON BUILDUP PROBLEMS

Diesel-powered generators are prone to problems associated with operating for extended periods of time with little or no load applied. This primarily results from over-sizing of the generator set to accommodate future loads and from maintenance test running that is necessary. Conditions such as accumulation of lubricating oil and unburned fuel in the exhaust stack (wet stacking) and carbon buildup in combustion chambers, on injector nozzles, piston rings, turbo chargers, exhaust piping and silencers commonly develop. "For total peace of mind, load banking is the method of choice to verify system operation, commissioning, and maintenance as well as certify system capacity" (Risser). An annual loadbank test at full generator set rated load will help prevent or regress these negative effects, will give owners renewed confidence in their equipment, and will prove proper operation of the entire generator set installation, including the starting system, the fueling system, and the ventilation and cooling systems. Annual load bank testing is required practice for hospitals and other critical applications. "Load bank testing should not be considered an option, but rather a critical element of your emergency preparedness plan" (Risser).

The common problems that can cripple an emergency standby power system are avoidable. Contact a qualified service provider and review your power system maintenance practices today. Be proactive! Do it now, before you're left in the dark!

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## About the Authors



Jim Ellis is the Product Support GM of Altorfer Power Systems, serving eastern Iowa, Central Illinois, and northeast Missouri. Jim has over 23 years of experience in the power generation industry. Altorfer Power Systems has a mission of being the undisputed leader in providing business solutions to its customers. They provide complete service and maintenance of engine-generators and associated electrical equipment from all manufacturers.

Lisa Phillips is the Electrical Testing Program Manager of Altorfer Power Systems. She spent four years in the United States Air Force. She graduated from Iowa State University with a Bachelor of Science in Electrical Engineering, with emphasis on power engineering. Lisa worked for seven years at the Duane Arnold Energy Center, a nuclear power plant located in eastern Iowa, before accepting her current position with Altorfer. For the past four years at Altorfer, Lisa has been responsible for the Electrical Testing Program, which provides customers with maintenance and testing services of automatic transfer switches, generator controls, and switchgear.



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# Recognizing EGSA Talent... Tracking

*"A journey of a thousand miles begins with a single step"-*

- Lao Tzu

However long or arduous a task might be, it should be initiated with something short and simple. The next two pages represent a list of current EGSA Members who have contributed significantly to the Association in a formalized, organized format.

No journey is ever completed that isn't started. We apologize in advance if we have omitted anyone by accident or left off a valuable member contribution. This chart is important... not only to track valuable achievements and contributions, but to also provide a road map for interested members to rise to the occasion and take the Association to new heights. As Michael Pope, 2012 EGSA President pointed out in his article this month, all edits and omissions will be compiled and revised on the EGSA website, where this valuable information will be posted in May 2012.

The chart also includes a Committee Key to assist you with the abbreviations.

A few important comments on the chart. Committee Officers will be recognized after completion of their first year of service.

The chart does not include our retired members' achievements, as it is a staff goal to develop a similar chart for the retirement milestone.

So whether the Members within the chart are authors of On-Site Power Generation: A Reference Book or if they have held a Board of Director officer or Director position, or Committee Chair or Co-Chair, EGSA

Name	Executive Board	Director	Committee Chair	Committee Officer	Book Author	Past Award Recipient					School Instructor
						Timmer	Carpenter	Johnson	Wright	President's	
ALLEY, DAVE		2001 to '03	ED 2003 and before		x	2001			2002		1998 to current
ANDERSON, LOWELL							1972				
ANDERSON, WAYNE					x						
ANDREWS, FRANCIS J.					x						
ANTONETTI, JOSE											
BARRIOS, DANIEL											
BASLER, MATT		2005			x						Start 2012
BAUER, WARNER	2005 to '09	2002 to '04	CG 1993 DG 2003	CC 2004 & '05	x	1993	2011				
BEASLEY, VAUGHN	2011 to Current	2008 to '10	DD 2009 to '11	DD 2006 to '08							
BERG, BRIAN		2011 to '13	MT 2009 to '11	MT 2007 & '08							
BIRDSONG, BOB											2004 to current
BRESEE, ROBERT											Since 2011
BROWN, DAVID		2009 to '11	BG 2010 & '11								
CARLTON, RANDAL					TC 2009 to '11						
CARR, RAYMOND											2007 to '10
CASTENSCHOILD, RENE					x						
CHEN, SCOTT					x						
CHEN, SIMON					x						
CHRYSAM, WALTER											2007 to current
CLEWES, WILLIAM											Start 2012
DALEY, JIM					x						
DAUFFENBACH, MIKE											2004 to current
DAY, BILL											2005 to current
DENNING, JESS											Start 2012
DETOR, NICK					GN 2009 & '10						
DUKE, KEITH						x					2001 to '07 2011
EVANS, KATIE						IT 2011 to current					
EVANS, STEVE	2012 to '14		GN 2011 to current	GN 2009 to '10	x						2010 to current
FENNELL, BRAD	2010 to '12		TS 2010								
FINNEY, NICK											2008 to '10
GAINES, TERRY					x				2008		1999 to current
GESKE, DAWN					GN 2011 to current						
GORE, JOHN						x					
HAALAND, OLE					x						1998 to current
HABIC, CHARLES		2007 to '09	MB 2006 & '07 AHNM 2009 & '10	MB 2004 & '05 CC 2011							
HAFICH, BOB		2001 to '03 2011 to '13	NM 2004 MB 2008 to '11 TC 2009 to '11	MB 2004 to '07 TC 2004 to '08			2010				
HAFICH, JOE		2008 to '10	DD 2003 to '08			2010					
HARTZEL, RON	2007 to '11	2003 to '06	CS 2003 to '07 EM 2006 to '10				2008				
HAWKINS, JOHN			CS 2008 to '10	CS 2006 & '07							
HANDLIN, HARRY											2008 to current
HINDE, TIM					x						1998 to current
HODGKINS, RICK					DD 2011						
HOLTGREIVE, ROBERT					x						
JI, ZHENLIN					x						
JOHNSON, ANTHONY											Start 2012
KACH, ED											1997 to 2010
KACVINSKY, RAY	2002 to '06	2000 to '02	NM 2009								
KAEWERT, WILLIAM											Since 2010
KELLY, JR., JOHN	2008 to current	2005 to '07	DD 1997 to 2002								
KOEHMSTEDT, STEVE											Since 2011
LATHROP, TODD		2012 to '14	CS 2011 to Current	CS 2007 to '10	x						2005 to current
LAURENTS, DEBRA	2010 to current	2006 to '08	SLRP	MB 2008 to '11 TC 2006 to '07							
LAWRENCE, STEVE											2002 to '08 2011
LEBLANC, LEO	1999 to 2004	1998 to 2000	MB 1997 CC 2005 & '06 TC 2004 to '08 SC 2006 to '08		1997 2007	1999					2005-2011
LECHTANSKI, JOE					x						
LESLIE, DAVID					x						
LEWIS, ROBERT					GR 2009 to '11						
LINTON, GREG	2006 to '10	2002 to '04	TC 2004 NM 2010								
MCSHEFFREY, JASON											Since 2011
MCDONALD, BOBBY		2008 to '10		DD 2003 to '09							
MCDONALD, JIM				GN 2011	x						2008 to current
MORRISON, RICK				DD 2011							
MURPHY, ED	2012 to current	2003 to '05	MB 2003 CC - 2011 to current	CC 2007 to '10	2003						
NELAND, RICHARD				IT 2005 to '08							
NEWELL, GEORGE		1998 to 2000									
NUNMAKER, RANDALL		2006 to '08	MB 2004 & '05	CC 2011 DD 2004 & '05							
OBERTO, LEE			IT 2004 to '08								
OLSEN, DICK			GR co-chair 2010								
PADDEN, MIKE			2007 to '11								
PAFFORD, BILL		2003 to '05	PG 2003								

# Valuable Member Contributions

Name	Executive Board	Director	Committee Chair	Committee Officer	Book Author	Past Award Recipient					School Instructor
						Timmer	Carpenter	Johnson	Wright	President's	
PEARSON, DENNIS			ED 2011 to current	ED 2011							
PEREZ, LARRY		2011 to '13			x					1995 to '98	
PEREZ, LUIS										2004 to '08	
PETTY, WALTER				GN 2011							
PIERSON, BEN				ED 2011							
PISKE, ROBERT				CS 2010							
POPE, MICHAEL	2008 to current	2005 to '07	ED 2003 to '06 GN 2009 to '10	TC 2006 to '09	x	2006	2009		2003		2007 to current
PREVOZNIK, DAVID MARK					x						
PROSSER, AL		2008 to '10		MB 2008 to '11							
REDDING, WAYNE										Start 2012	
RISER, LYNDON				DD 2009 to current							
ROUNDTREE, DENNIS		2007 to '09	ED 2007 & '08	ED 2004 to '06		2009		2006		1998 to current	
SANDERS, RICHARD					x						
SCHAFFER, RICH					x						
SCHROEDER, RON		2010 to '12			x					1994 to current	
SCHWARTZENBERG, JOHN					x						
SCOTT, RICHARD					x						
SEFTICK, RON	1995 to '99	1992 to '94				2000					
SLATER, LANNY			IT 2009 to current								
STEELE, MARK		2010 to '12	GR co-chair 2009 to '11	GR 2005 to '08							
STOYANAC, STEVE	2001 to '05	1998 to 2000	MB 2001 to '03 NM 2005 & '08 RB 2006 to '12			2000	2006			2008 to current	
STUEBI, RICHARD					x						
STRUSS, DARRELL				IT 2009 & '10							
SVENDSEN, JOHN				CS 2011							
SWEENEY, ROB				TC 2009 & '10							
SZALZUS, MARK										2006 to '08	
TAIT, WARREN					x						
TINGLE, KYLE		2012 to '14	MT 2011-current	MT 2009 to '11							
VAN MAAREN, RICHARD					x						
VILD, BRENT										2007 to '09	
VISIOLI, ARMAND		2003 to '05	CC 2003 & '04			2005					
WALTER, BRAD					x						
WALTERS, GREG		2009 to '11		ED 2011							
WATSON, DARREL										2006 to '09 2011	
WEIMER, RANDY		1996 to '98									
WESTHOFEN, CHUCK				MT 2009 to '11							
WHITALL, HERB						1996					
WILHELM-VOLPI, LOREL				IT 2009 & '10							
WITKOWSKI, MIKE		2009 to '11		CS 2008 to '11	x					2008 to current	
WOLF, FRED					x						
WOOD, RAY			GR 1985 MM 2003 GR 2004 to '08			1985					
ZIRNHELT, JOE			MT 2011								

Staff has poured over the historical data to come up with this comprehensive "running list of volunteer achievements."

#### KEY TO COMMITTEE CODES

AHNM	Ad Hoc Nominating Procedures
BG	Buying Guide
CS	Codes & Standards
CG	Co-Gen/Environmental
CN	Convention
CC	Communications & Conventions
DG	Distributed Generation Sub Committee
DD	Distributor/Dealer
ED	Education
EM	Electronic Media
GN	General Subcommittee
GR	Government Relations
GN	Green
IT	International Trade
MT	Market Trends
MB	Membership
MM	Military Mobile Power
NM	Nominating
PG	Power Generation Sub Committee
RB	Reference Book
SC	Scholarship
SLRP	Strategic Long Range Planning
TS	Trade Show
TC	Tech Certification

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To learn more about EGSA and our Technician Certification Program, please visit [www.egsa.org](http://www.egsa.org).



**Electrical Generating Systems Association (EGSA)**

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2.5 MW Caterpillar diesel generator farm at the QTS Atlanta Metro facility.

# Diverting Digital Data Disasters with Diesel

By: Georgia Rose Krause, Diesel Technology Forum

## THE BIO-DIESEL CONUNDRUM

Herb Whittall, EGSA Technical Advisor, recently noted that the government is pushing B-5 bio-blend fuel for use in diesel gen sets. The problem is that bio-diesel blends begin to deteriorate after 6 months, diluting the properties that make diesel fuel a consistent, reliable energy source. Customers who mistakenly add a bio-blend to a pure diesel storage tank find the original fuel also breaks down sooner. Whittall reported that there are no current laws or standards that require a fuel supplier to tell customers if a fuel delivery contains pure or bio-blended diesel. According to Whittall, the supplier may not even have that information. Customers who don't know if their tanks have been cross-contaminated can't be sure if they are operating their engines in compliance with the manufacturer's recommendations. Using a non-recommended fuel could void their equipment's warranty or cause the engine to run inefficiently.

In an effort to fix this situation, the 2013 edition of the NFPA 110 Standard for Emergency and Standby Power Systems and NFPA 111 Standard for Stored Electrical Energy Emergency and Standby Power Systems will be revised to refer users to their manufacturer's recommendations.

The proposal that will make your career is ready to email to your client. You press SEND and wait for the proceeds to roll in. Except the server farm that houses your company's data just experienced a severe storm, which knocked out all electric power in the area. You stand to lose time, money, content, customers and patience. Whether it happens to you personally or to your company, the effect is the same. No power, no proposal, no go, no profit.

## The reliability promise

The threat to prime power sources is constant and in most cases unpredictable. Environmental events such as those we've experienced recently – flooding, tornadoes, wildfires, earthquakes, and tsunamis – have taken down prime electric power sources, threatening vital electronic communications networks with power reductions and outages.

While we depend more and more on digital communications to manage our lives, we've become accustomed to the world-class service the communications industry provides and now simply assume that their same level of excellent service will continue indefinitely. When we trust our money, health and security data to voice and data companies, we expect them to do everything in their power to provide reliable service. To meet our expectations, electronic voice and data service companies are designing backup diesel-powered generator systems that will provide immediate emergency energy should their prime power provider fail. Diesel fuel's

energy-producing properties and reliability make it the emergency power choice for the country's communication networks and data management centers.

## How diesel power meets the unique demands for smooth data transmission

Digital transmissions, whose 0's and 1's footprints can be visualized as minuscule peaks and valleys of electric current that pulse along at full force and remain at that velocity for long periods of time, require an extremely even and reliable power source. Comparing it to a manual transmission car, Gary Olson of Cummins Power Generations says these tiny peaks and valleys in the digital stream cause minute 'stutters' in the power wave, much like how an inexperienced driver operates a clutch. A ten-second power 'stutter', the maximum interruption suggested by the National Fire Protection Agency's 110 standard for emergency standby power, can disrupt the data's travels, tangling the digital stream to corrupt the file, making it useless to the end user.

When a data center or communications carrier outage occurs, its diesel standby power system automatically switches to the immediately available stored short-term battery power which is part of the backup system. Drawing energy from the batteries, the backup diesel gen set powers up and begins to produce full strength electricity within 6.5 seconds, according to Caterpillar's Chad Dozier. Compare that start up time to a gas generator that Dozier

says can take 20 to 30 seconds for a gas-powered gen-set to start after it purges, pressurizes and gets the gas into the engine.

Unlike power sources that have a more intermittent power profile, such as wind or solar, diesel fuel's extremely consistent and reliable combustion properties provide a smooth power flow on which digital data and voice signals can travel. While a spark-ignited engine, such as one fueled by gasoline or natural gas, may misfire and produce uneven combustion cycles that can cause an erratic power flow.

A diesel-fueled engine's compression ignition is a predictable reaction to air and fuel infusions and produces energy that holds a steady flow. This is important to data/voice transmission because just a minuscule voltage fluctuation in a data center can cause sensitive computer equipment to fail. By eliminating the fits-and-starts of a sparked ignition engine, a CI engine eliminates superfluous non-digital pulses in the data transmission stream. Additionally, a diesel genset's steady power can carry full-force block loads of data at a 100 percent load acceptance rate immediately with little start up time or load restrictions imposed on the data source. Importantly, with no spark plugs to foul or corrode, standby generators with CI engines are immediately available and can wait – sometimes months – to be called to service.

Quality Technology Services (QTS) is an example of the digital industry fulfilling its promise of reliability to its customers. Brian Johnston, CIO, oversees 12 QTS data center locations with more

than 3 million square feet in 7 states. QTS is the third largest data center in the country, providing critical IT services to more than 600 clients. Johnston says his firm's managed data centers and cloud services are part of what he calls the next American railroad, an ever-changing and connecting network of paths and stations that carry and hold our digital valuables. Case in point, Johnston asks "One hundred years ago, Coca-Cola probably stored its secret formula in a safe. Where do they store that formula today? More than likely, it has been sent to a data center." The security provided by the data center is built on a foundation of continuous, consistent power that makes each customer's information immediately available, maintained and protected.

Data centers like those at QTS have hundreds of thousands of servers and storage modules that process data for search engine firms, financial institutions, healthcare companies, security agencies and all the miscellaneous digital doodads we trust to the internet. Just a brief high or low-voltage discharge in the data center can affect sensitive computer equipment and result in the total loss or corruption of information we depend on. Responsibility for that information is a serious financial concern for both the data

centers and their clients. QTS customers sign a service level agreement that promises 99.9 percent reliability. If QTS doesn't fulfill that promise, clients are recompensed for the power shortage. Clearly, it's advantageous to QTS and their customers to be up and running 100 percent of the time. To do this, QTS has generator



Inside the QTS data center



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farms, like the one in Atlanta, populated with 35 Caterpillar 2.5 MW diesel generators offering 82 MW of backup power.

Olson says data loads rarely decrease and tend to gradually increase over time and global systems, such as internet search engines and service providers, run for very extended times. Olson says "Diesel-fueled generators experience less mechanical stress under the demand for continuous high voltage generation as compared to generators using other fuel types. Companies installing diesel emergency power systems can be confident that the gensets they installed today are durable enough to handle the larger loads they anticipate in the future."

### **Backup Power Generation Categories**

**Michael Kirchner, Technical Support Manager for Generac, explains that backup power generation falls into four categories:**

- Emergency standby systems that power healthcare facilities such as hospitals, nursing homes and laboratories.
- Legally required standby power systems for municipal water, waste and sewer operations.
- Optional standby systems that, while not legally required, protect a company from recovery costs and loss of revenue.
- Emergency fire protection power for electrically driven fire pumps in structures such as high rise buildings.

After Hurricane Katrina, the federal government commissioned a study to determine which industry segments it considers process-critical and made standby power recommendations. Currently there is no national, enforceable standard that prescribes specific backup power run time requirements for data and voice companies, although the FCC recently resurrected its intention to require all cell towers in the 144 cellular companies to have on-site backup generators according to Brian Josef, Assistant Vice President for Regulatory Affairs with CTIA-The Wireless Association. Data storage centers and communications companies usually build to a 72 to 96 hour back up time depending on the company's estimated demands but while the voice/data industry becomes more mission-critical every day, it is still self-regulating and falls under the optional category.

Local municipal codes, usually based on non-enforceable standards published by the National Fire Safety Association, can legally require a voice/data company to have all-inclusive, independent on-site standby power systems that can run for extended periods independent of external power supplies such as local electric or natural gas utilities. Independent power sources are limited to diesel generators, batteries, wind energy and solar power. According to Kirchner, diesel-powered gensets can produce more hours of continuous electricity than standby batteries can deliver, create more than gasoline powered generators in applications requiring

# **Top of Mind**



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#### **Storing reliability**

Part of the emergency power supply system's reliability is fuel availability. Diesel fuel can be stored on-site in above ground, underground or in sub-base storage tanks depending on requirements determined by local codes. On-site fuel storage can save money and increase efficiency. Companies may purchase fuel when prices are lower for use during an emergency when fuel prices may rise or fuel becomes unavailable. Stored fuel allows companies to control their fuel supply's distribution and security in emergency or recovery situations. Companies with on-site fuel can monitor fuel quality, especially important with bio-fuels.

Jim Weller, President of Baltimore Technology Park, says fuel storage planning is sometimes overlooked. "People like

to tout that they have fuel supply contracts in place. But I can tell you from experience that when you have a city-wide outage, getting your fuel delivered per that contract is not always an easy task. In our case, we have sufficient fuel supply on hand to make it through the high-impact part of an emergency or disaster. From my experience we have a minimum of 48 hours worth of fuel on hand. According to most studies, you're covered in a blackout with about a two-day supply." ■

#### **Sources:**

Brian Johnston, Quality Technology Services, [www.qualitytech.com](http://www.qualitytech.com)

Michael Kirchner, Generac, [www.generac.com](http://www.generac.com)

Gary Olson, Cummins Power Generation Inc., [www.cumminspower.com](http://www.cumminspower.com)

Chad Dozier, Caterpillar Inc., [www.cat.com/power-generation](http://www.cat.com/power-generation)

Brian Josef, CTIA, [www.ctia.org](http://www.ctia.org)

### **FROM THE TOP**

*Continued from page 7*

ly attest that volunteering for EGSA has brought me many benefits:

- New knowledge – I have had to research topics in the course of preparing for EGSA On-Site School modules, writing Chapters for the On-Site Power Reference Book and preparing technical papers for Powerline
- Some wonderful life-long friendships
- Great pride and satisfaction in seeing people/companies that I recommended join EGSA continually attend meetings – and become involved and volunteer
- My employer was previously unknown in the Power Generation industry. That has changed because of my volunteering

If you are new to the Association or attending one of our conventions for the first time, a great place to start is at one of our Committees. If you are an engine/generator set distributor or dealer, the Distributor/Dealer Committee would benefit from your knowledge and participation. If you

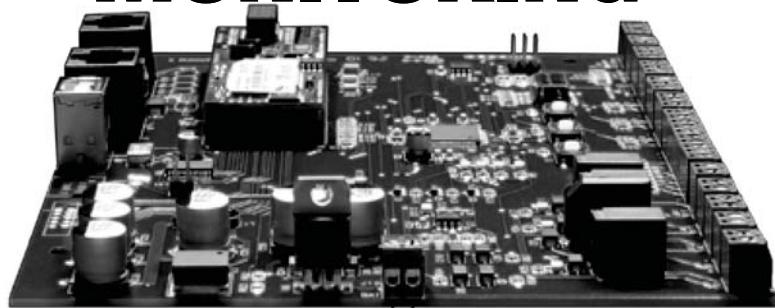
are a sales and marketing type, consider attending the Membership or Communications and Conventions Committee. The Codes and Standards Surveillance Committee attracts many of our engineering Members. Check out the list; there really is something for everyone!

Volunteering improves the lives of others, is rewarding and builds strong-relationships in On-Site Power. So ask questions, make sure you know what is expected, don't be afraid of change and enjoy your time spent! If we can do anything to enhance your EGSA experience in this manner, don't hesitate to let us know in person at a convention or via email [e-mail@egsa.org](mailto:e-mail@egsa.org).

To those of you that contribute at our Committee meetings, send in ideas, teach at our Schools, write Chapters for the Reference Book, serve as Committee Officers and Board Members, I sincerely thank you on behalf of all EGSA members. You are the truly the heart of the Association. ■

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### UNITED ALLOY, INC...

...is a Custom Metal Fabrication & Powder Coating company and is an ISO 9001:2008 facility located in Janesville, Wisconsin USA. UAI is known for producing the highest quality diesel fuel tanks, generator frames, heavy metal fabrications and weldments. In addition we are registered with the State of Wisconsin, Bureau of Procurement and VendorNet System. Key benefits of partnering with UAI include:

- On Time Delivery
- Powder Painting
- Testing & Quality
- Labor Cost Containment
- Customer Responsiveness
- Speed to Market

UAI has provided over 40,000 tanks, in addition to large scale industrial weldments, to world class OEMs including: Cummins Power Generation, Generac, Magnum Products and Sullair.

For more information visit, visit [UnitedAlloy.com](http://UnitedAlloy.com).

*Pictured from left to right:*

*Mike Coyle-VP Engineering, Trisha Fitzmaurice-QA Director,  
Holly Backhaus-VP Finance, Terri Roessler-CEO/CFO,  
Leah Elsen-HR Director, Luke Jaynes-Sales Manager.*

United Alloy, Inc., (UAI) headquartered in Janesville, Wisconsin, is a minority-owned manufacturer of diesel fuel tanks, generator frames and heavy metal fabrications. Made in the USA is a protected standard that is held in high regard at United Alloy. The production of these massive fuel tanks takes place entirely in the USA, singling out United Alloy's commitment to providing the highest quality American-made products available.

The Federal Trade Commission (FTC) states that the Made in the USA standard is reserved for products that have virtually all production components produced in the USA. That is, all significant parts, processing and labor that go into the product must also be of U.S. origin. Products should not contain any – or only negligible – foreign content.

Terri Roessler, Chief Executive Officer for UAI, reflects on the firm's twelve year history, "We have had learning curves, growing pains, and a dramatic shift in company business, but we have welded these experiences together to create opportunity...developing our commitment to producing superior products that meet the Made in the USA criteria, as well as maintaining full customer satisfaction."

In 2008, demand in the disaster recovery market shifted UAI's company business to approximately 90% power generation. Of this 90%, United Alloy has 100% of that segment focused on back up and standby power. Their customer list reads like the "Who's Who" of manufacturers...Generac, Magnum Products and Cummins Power Generation all rely on products built by UAI.

As an EGSA Member since 2009, UAI joined EGSA to keep up with the latest market trends, technology and industry standards. Sales Manager, Luke Jaynes, is a regular at EGSA Conventions and Conferences and reports that his connection to EGSA is forged by the face-to-face networking opportunities. "It enhances our ability to serve power generation customers by learning first-hand what is happening in standby power," continues Luke, "I enjoy the ability to have a voice in the Industry to provide our company input on fuel tank solutions."

In 2011, UAI had tremendous growth...almost 40%. Their shift from "job shop" commercial engagements to "contract fabrication" engagements has improved UAI's ability to forecast and accommodate compressed lead times. Additional UAI product lines include generator skids, complex weldments, fabrications and powder coating.

The future of standby power is secure according to UAI representatives. Even though their product lines are not conducive to ship overseas (too large), they believe that on-site power will be required here at home for many years to come due to North America's aging infrastructure. Even homeowners will get on the bandwagon as our Nation's infrastructure ages. The average homeowner will seek backup power as a normal course of business.

On the subject of green technology, UAI recycles their scrap and steel. They also retrofitted all plant lighting with energy-efficient transformers and bulbs. UAI will continue to seek cost-effective, energy saving opportunities.

Roessler adds, "While the current economic climate remains weak and there is a higher level of uncertainty in the building and construction markets, UAI has been positively affected in the telecommunications and rental markets. Most of our business in standby power is event based. Time is of the essence. When disasters hit, people rely on our industry to get them up and running as fast as possible. In manufacturing, you have to be nimble to respond to burst capacity requirements."

So for a woman-owned company, with a brand that proudly lives up to the Made in the USA standard, EGSA Member United Alloy, Inc. is poised for the 21st century and beyond. ■



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## NEW EGSA MEMBERS

MF=Manufacturer DD=Distributor/Dealer CI=Contractor/Integrator MR=Manufacturers Rep  
 EM=Energy Management Co. AA=Trade Publication AB=Trade Association AC=Engineer  
 AD=End-User AE=Service AG=Educational Institution AR=Retiree AF=Student

### American Cooling Systems, LLC . . . . . MF

Grand Rapids, MI  
 David Solomon, Sales & Marketing Director  
 ACS is a leading manufacturer of polymer engine cooling fans in the generator set market. Fan diameters range from 13 (330 mm) to 49.2 (1250 mm) in 30 unique fan series. ACS Fans ranging from 38 (965 mm) to 49.21 (1250 mm) are customizable from 5-15 blades with pilots up to 10.00 (254 mm).

### C E I Energy, Inc. . . . . AC

Waltham, MA  
 Robert Finger, Project Management, Project Development for CHP.

### Commercial Power Solutions, LLC. . . . . DD

Owasso, OK  
 Bob Lasley, Vice President  
 We are a dealer for Blue Star Power Systems, Generac Residential/Commercial, Briggs & Stratton, GE & PowerPulse 24. We offer service, repair, testing, maintenance & monitoring on all brands. We specialize in custom modifications.

### Critical Power Solutions, LLC. . . . . CI

Oakwood, GA  
 Robert McMahon, President  
 CPS is an independent Power Gen Dealer/Distributor/Service provider in the Atlanta area. CPS specializes in custom applications requiring integration with other systems and OM Services for Large Prime/Standby Systems.

### Diesel Services, Inc. . . . . DD

Grand Junction, CO  
 Steve Rash, President  
 Diesel engine dealers - sales, service, parts. Diesel Fuel Injection Service. Fabricate equipment incl. gensets. Cummins, Deutz, Isuzu, Perkins, Bucks, Marathon, Newage, Mecc Alte, Controls Inc., LoFA, Chicago Pneumatic.

### Farallon Capital . . . . . AE

San Francisco, CA  
 Josh Sweren, Analyst  
 Investment Firm - Equities, etc.

### Frohman and Associates . . . . . AE

Glendale, OH  
 Chris Luzar, Principal  
 Frohman and Associates conduct market and technology research - both quantitative and qualitative studies.

### GE Intelligent Platforms . . . . . MF

Southfield, MI  
 Jack Faett, Industry Manager - Mission Critical Power  
 GE Intelligent Platforms' advanced technology control solutions deliver maximum availability for mission critical backup power and cooling systems with a complete portfolio of high performance control solutions for application in a wide range of mission critical applications including, paralleling switchgear, backup generator set management and critical cooling system management.

### Genko Power Solutions . . . . . CI

Nairobi, Kenya  
 Eustace Opinya, Managing Director  
 Genko Power Solutions is a company based in Nairobi Kenya that specializes in providing power solutions. Our solutions include diesel or gas generators used for back up power, solar panels, convertors, batteries, automatic transfer switches, automation, PLC's, electrical motors. Perkins.

### Keys Power Systems LLC. . . . . DD

Key West, FL  
 Michael Hasse, CEO Chief Engineer  
 Keys Power Systems LLC is a Commercial, Industrial, Generator Sales and Service Company. We are dealers for Generac, MTS, and Kohler.

### Knoebel and Associates/ KJM Custom Components . . . . . MR

Menomonee Falls, WI  
 James Heldt, Technical Director  
 K & A/KJM represents Cooper Corporation Generators and Engines.

### Lake Shore Electric Corp. . . . . MF

Bedford, OH  
 Brian Potasiewicz, Operations Manager  
 Lake Shore Electric Corporation is a minority-owned Manufacturer that designs and manufactures switchgear, switchboards and controls primarily in the on-site power generation market. With over 80 years of experience, our product line includes low and medium voltage transfer switches, paralleling switchgear, quick connection cabinets and service pedestals.

### Lansing Community College - West Campus . . AG

Lansing, MI  
 John Hanley, Professor  
 We are a two-year degree program with a wide selection of courses in many electrical fields including power generation covering steam, gas turbine & diesel electric power generation as well as instrumentation & control. Dean: George H. Berghorn. Faculty: James C. Swain-Lead Faculty, Prof. John M. Hanley, Prof. Stephen L. Vossler, Prof. David Mattson, Instructor Dale George.

### Northeast Generator . . . . . DD

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 Mark Holzner  
 Sell, service, install and rent all types of generator systems through CT, NY, from 8kW through 1 MW. Generac, Baldor, Briggs & Stratton.

### Therm Flo, Inc. . . . . DD

Wheeling, IL  
 James Hamill  
 Generac Generator Service Dealer.

### Ultimate Service Associates. . . . . AE

Tulsa, OK  
 Kirk Hilbig, President  
 USA is a nationwide generator maintenance and service company.

### Varitech, Inc. . . . . DD

Louisville, KY  
 Greg Brown, President  
 Varitech, Inc. sells, installs, services & repairs standby generators. We are an industrial dealer for Generac, and a dealer for Briggs and Stratton and GE Generator Systems.

### VDO Instruments . . . . . MF

Allentown, PA  
 Mike Kollar, Program Manager - Distribution  
 VDO is focused on providing our customers with the best possible instrumentation while delivering the functionality, durability and high quality finish that earned our products a best in class reputation, worldwide. We strive to continually pursue innovations that make our instrumentation more efficient, affordable and useful to the people and markets we serve.

### Daniel T. Martin, P.E. . . . . AR

Scottsdale, AZ  
 Daniel Martin  
 I retired from Ingersoll Rand on Feb. 1, 2007. My last position there was VP-Engineering for Ingersoll Rand Energy Systems, which developed & marketed all the stationary gensets, including Microturbine & Diesel-Driven Generators.

### David Downey . . . . . AF

Weymouth, MA



# Application for Membership

## ELECTRICAL GENERATING SYSTEMS ASSOCIATION

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*Under the leadership of its Board of Directors and operating through its various committees and staff, EGSA strives to educate, provide networking opportunities and share relevant knowledge and trends with industry professionals including manufacturers, distributor/dealers, engineers, manufacturer representatives, contractor/integrators and others serving On-Site Power consumers.*

### 1. Contact Information

*Please type or print all information in upper and lower case (NOT ALL CAPS!)*

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Zip/Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Phone \_\_\_\_\_ FAX \_\_\_\_\_

Official Representative \_\_\_\_\_ Title \_\_\_\_\_

Representative's E-Mail \_\_\_\_\_ Company's Web Address \_\_\_\_\_

How did you hear about EGSA?  Web site  Powerline magazine  Colleague  POWER-GEN  Other \_\_\_\_\_

Why are you joining EGSA?  Certification Program  CEU Program  Power Schools  Buying Guide Listing  Other \_\_\_\_\_

### 2. Member Classification *Read the Membership classifications below and check the box that describes your firm's classification.*

#### I. FULL MEMBERSHIP

##### MF **Manufacturer Membership**

Any individual, sole proprietor, partnership or corporation seeking membership must apply for a Full Membership as a manufacturer if they meet one or more of the following criteria:

1. They manufacture prime movers for power generation.
2. They manufacture generators or other power conversion devices producing electricity.
3. They manufacture switchgear or electrical control devices.
4. They manufacture or assemble generator sets, UPS systems, solar power, hydropower, geothermal, or any other power production or conversion system including related components or accessories for national or regional distribution.
5. They are a wholly owned subsidiary of a firm that qualifies under rules one through four.

##### DD **Distributor/Dealer Membership**

Any individual, sole proprietor, partnership or corporation actively engaged as a distributor or dealer for products listed under Manufacturer Membership may apply for Full Membership as a Distributor/Dealer. If an organization qualifies under Manufacturer Membership, it is not qualified under this section.

##### CI **Contractor/Integrator Membership**

Any individual, sole proprietor, partnership or corporation actively engaged as a Contractor or Equipment Integrator of products listed under Manufacturer Membership, not bound by brand, geographic territory or contractually obligated as a Distributor/Dealer of a specific product. These firms typically purchase products from a Distributor/Dealer, Manufacturer or Retailer, adding value through installation, product knowledge, relationships, unique services, etc., and then re-sell the resulting product to an end-user.

##### MR **Manufacturer's Representative Membership**

Any individual, sole proprietor, partnership or corporation actively engaged in the representation of products listed under Manufacturer Membership may apply for Full Membership as a Manufacturer's Representative. If an organization qualifies under Manufacturer Membership, it is not qualified under this section.

##### EM **Energy Management Company Membership**

Any individual, sole proprietor, partnership or corporation engaged in energy management, including Energy Service Companies (ESCOs), Independent Power Producers (IPPs), Integrators, Aggregators, and other similar enterprises may apply for Full Membership as an Energy Management Company.

##### **Associate Full Membership (mark appropriate category at right)**

Any individual, sole proprietor, academic institution, student, partnership or corporation meeting the requirements of Associate Regular Membership may apply for Full Membership at their option to enjoy the privileges of Full Membership, including the rights to vote and to serve on EGSA's Board of Directors. Initiation fees and annual dues will be assessed at the existing non-manufacturer Full Member rates.

#### II. ASSOCIATE REGULAR MEMBERSHIP

##### AA **Trade Publication Membership**

Any trade publication dealing with the electrical generating systems industry or its suppliers may apply for Associate Membership—Trade Publications.

##### AB **Trade Association Membership**

Any trade association made up of individual or company members sharing a common interest in the electrical generating systems industry may apply for Associate Membership—Allied Associations.

##### AC **Engineer Membership**

Any consulting or specifying engineer may apply for Associate Membership—Engineer. Membership may either be held in the employer's name or individual's name under this classification. Individuals whose employer qualify as a Full Member, as described in the Full Membership section, do not qualify for this category.

##### AD **End-User Membership**

Any individual employee of a company who owns or operates electrical generating equipment and/or related switchgear or components, whose responsibility to his employer includes planning, design, installation, supervision, or service of such equipment may apply for Associate Membership—User. Membership may either be held in the employer's name or individual's name under this classification. Individuals whose employer qualify as a Full Member, as described in the Full Membership section, do not qualify for this category.

##### AE **Service Membership**

Any individual, organization or academic institution that offers services such as research, testing or repair to the electrical generating systems industry may apply for Associate Membership—Services. Membership may either be held in the individual's name or the organization's name under this classification. Individual companies whose employer or parent organization qualifies as a Full Member, as described in the Full Membership section, do not qualify for this category.

##### AG **Educational Institution Membership**

Any postsecondary vocational-technical school or college offering on-site power generation-related instruction may apply for Associate Membership—Education Institution.

##### AR **Retiree Membership**

Any individual who retires from a member company may apply for Associate Membership—Retired. This classification does not apply to any individual who is employed more than 20 hours per week.

##### AF **Student Membership**

Any individual currently enrolled at an academic institution may apply for Associate Membership—Student.

## Application for Membership – page 2

### Dues Schedule (Use for Section 3)

	<b>Annual Dues</b>	<b>Initiation Fee</b>	<b>TOTAL</b>
Manufacturer.....	\$825.....	\$200.....	\$1025.....
Distributor/Dealer.....	\$285.....	\$100.....	\$385.....
Contractor/Integrator .....	\$285.....	\$100.....	\$385.....
Manufacturer's Representative.....	\$285.....	\$100.....	\$385.....
Full Associate Member.....	\$285.....	\$100.....	\$385.....
Energy Management Company.....	\$200.....	\$100.....	\$300.....
Regular Associate Member.....	\$200.....	\$100.....	\$300.....
Retiree Member.....	Complimentary.....	\$0.....	\$0.....
Student Member .....	Complimentary.....	\$0.....	\$0.....

**NOTE:** A FULL 12-MONTH DUES PAYMENT MUST BE RECEIVED WITH THIS APPLICATION. The Association's Membership Year is January 1 through December 31. Dues payments that extend beyond the first Membership Year will be applied to the second year's dues.

**FULL PAYMENT MUST BE RECEIVED WITH APPLICATION.**

### 3. Membership Dues (Please fill in the appropriate TOTAL amount from the above dues schedule.)

Membership Dues \$ \_\_\_\_\_

Membership Plaque (optional)\*\* \$ \_\_\_\_ 49.95\*\*

On-Site Power Reference Book (optional)\*\* \$ \_\_\_\_ 125.00\*\*

**Florida Residents:** Add 6% Sales Tax to \*\* items \$ \_\_\_\_\_

Continental US Residents add \$5 shipping/handling to\*\*items. \$ \_\_\_\_\_

Non Continental US Residents should call EGSA

Headquarters for shipping charges for \*\*items. **TOTAL** \$ \_\_\_\_\_

### 4. Payment Method (Payable in US\$ drawn on U.S. bank, U.S. Money Order, or American Express)

Check # \_\_\_\_\_ Amount Due \$ \_\_\_\_\_

Money Order

Mastercard  Visa  American Express

Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

### 5. Products/Services

Please describe the nature of your business (50 words or less, NOT ALL CAPS). If you are a Manufacturer's Representative or Distributor/Dealer, please indicate which manufacturers you represent and/or distribute for; if you are a student, please provide the name and location of your school, your major and your anticipated graduation date:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Do you buy AND sell equipment?  Yes  No

Do you manufacture packaged equipment?  Yes  No

#### Available Codes:

- 01 ---Batteries/Battery Chargers
- 02 ---Control/Annunciator Systems
- 29 ---Education
- 30 ---Emission Control Equipment
- 04 ---Enclosures, Generator Set
- 05 ---Engines, Diesel or Gas
- 06 ---Engines, Gas Turbine
- 07 ---Engine Starters/Starting Aids
- 08 ---Filters, Lube Oil, Fuel or Air
- 28 ---Fuel Cells
- 03 ---Fuel Tanks and Fuel Storage Systems
- 09 ---Generator Laminations
- 10 ---Generator Sets
- 11 ---Generators/Alternators
- 12 ---Governors
- 13 ---Heat Recovery Systems
- 14 ---Instruments and controls, including meters, gauges, relays, contactors, or switches
- 15 ---Load Banks
- 16 ---Motor Generator Sets
- 17 ---Radiator/Heat Exchangers
- 18 ---Relays, Protective or Synchronizing

- 19 ---Silencers/Exhaust Systems/Noise Abatement
- 20 ---Solenoids
- 21 ---Switchgear and Transfer Switches (Automatic or Manual), Bypass Isolation Switches, and/or Switchgear Panels
- 22 ---Trailers, Generator Set
- 23 ---Transformers
- 24 ---Uninterruptible Power Supplies
- 25 ---Vibration Isolators
- 26 ---Voltage Regulators
- 27 ---Wiring Devices or Receptacles

#### Enter codes here:

**Products sold:** \_\_\_\_\_

**Products rented:** \_\_\_\_\_

**Products serviced:** \_\_\_\_\_

### 6. Sponsor(s):

A "Sponsor" is an EGSA Member who interested you in filling out this application. It is not mandatory that you have a sponsor for the Board to act favorably on this application; however, if a Member recommended that you consider membership, we request that individual's name and company name for our records.

Sponsor Name \_\_\_\_\_ Company Name \_\_\_\_\_

### 7. Official Representative's Authorization

Signature \_\_\_\_\_ Date \_\_\_\_\_

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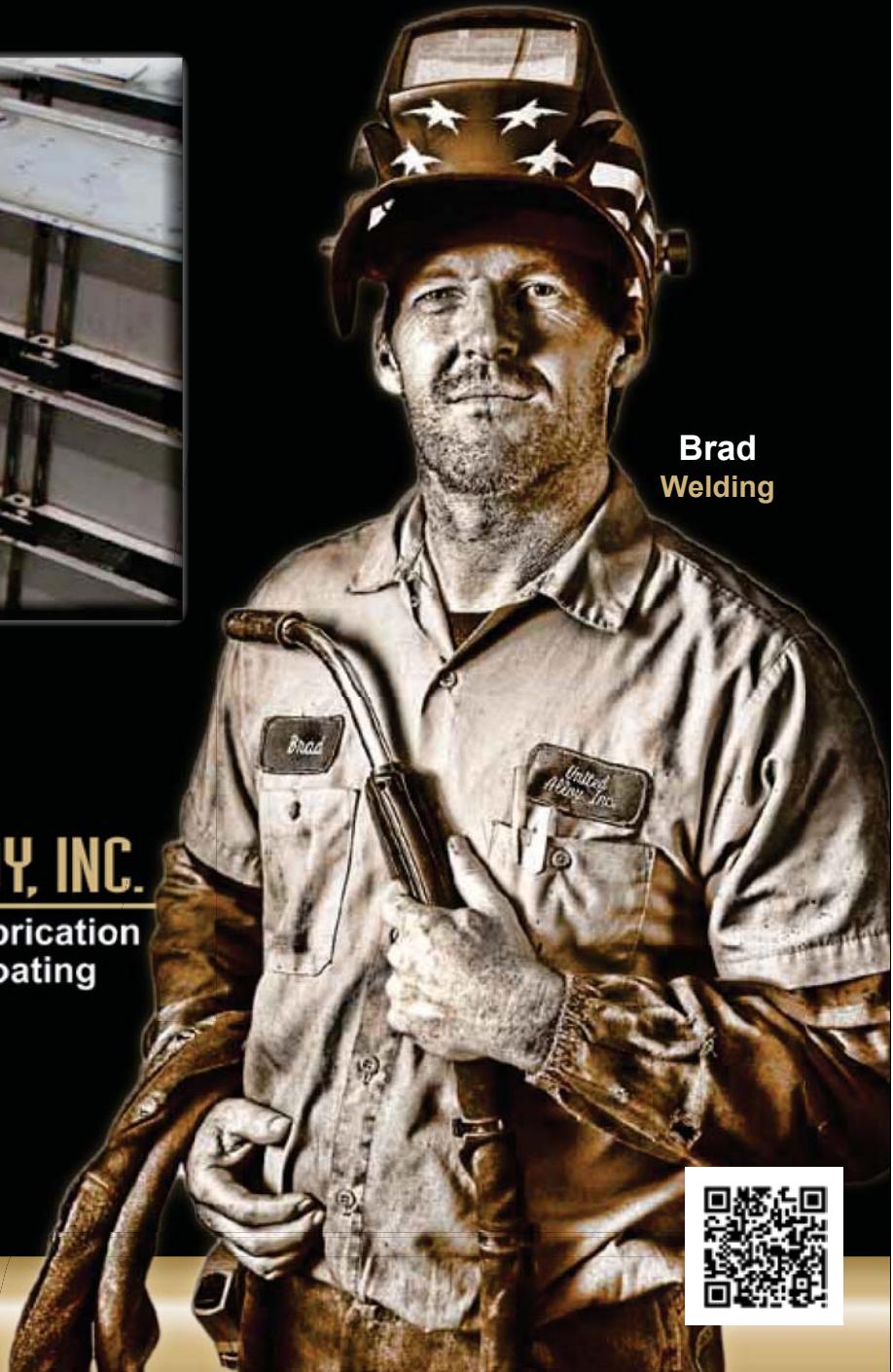
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# EGSA JOB BANK

## Generator Field Service Technician

Pacific Power Generation is currently seeking experienced Gen Techs for our Kent & Ridgefield, WA locations. PPG has been a premier full service generator distributor in the NW for over 50 yrs, including Washington, Oregon, Alaska and Hawaii. Please see our websites [www.pacificddaa.com](http://www.pacificddaa.com) and [www.pacificpowergen.com](http://www.pacificpowergen.com)

We offer competitive wages and Medical/Dental/Vision/401K. For consideration, please forward a resume highlighting skill-sets, experience, education and achievement. E-mail to [Jadsero@pacificpowergen.com](mailto:Jadsero@pacificpowergen.com) or fax 253-395-2408.

PPG is an Equal Opportunity Employer  
EGSA Certified Technicians Preferred.

## Generator Service Sales

Full-time experienced generator service salesperson in Phoenix, AZ. Territory includes southern Nevada, Arizona and New Mexico. A successful candidate will need a working knowledge of power generation equipment and strongly driven to seek out new customers. We offer competitive base and commission rates, along with a full complement of benefits. Please fax resume to (602) 233-2620.

## Emergency Generator Sales

We are growing! Genset Services, Inc., the top tier industrial distributor for Generac generators in South Florida, has an opening for an outside salesperson. Candidates should have a minimum of 3 yrs sales experience in emergency power equipment or in a related field. We offer a competitive compensation package that includes a base salary, plus commission, car allowance, health insurance, vacation and investment plan. Please forward your resume with cover letter and salary requirements to [matt@gensetservices.com](mailto:matt@gensetservices.com).

## Experienced Generator Technician

Weld Power Service Co. of Auburn, MA has an immediate opening for an experienced Generator Technician. We are looking for a highly motivated, self-sufficient technician, able to assist our expansion efforts. Candidates must have a minimum three years of experience in servicing industrial generator sets. Must be able to service, repair, troubleshoot both gaseous and diesel engines, as well as alternator ends, controls and automatic transfer switches. Weld Power Services Company offers industry competitive wages, paid vacation, holidays, 401K contributions, medical, dental and life insurance coverage. Starting pay based on experience (\$16-\$28/hour). Please email your resume and cover letter to [weldpowerjobs@gmail.com](mailto:weldpowerjobs@gmail.com).

EGSA Certified Technicians Preferred.

## Industrial Switchgear Product Specialists

TAW® is looking for Industrial Switchgear Product Specialists for our Power & Distribution & Switchgear Div. at our custom equipment facility in Riverview, FL. Candidate will increase sales of switchgear & power equipment centers for low & medium voltage product lines with new & existing accounts and target customers for utilities; OEM's & municipalities to drive volume. Prior experience either selling, or application engineering of, industrial switchgear systems. Prior experience working for a manufacturer, or re-seller of industrial switchgear - medium or low voltage in either an engineering; applications; or sales role. TAW® offers a competitive salary and commission, as well as benefits. Candidates can be based, & will cover the following markets: Houston, Atlanta, Charlotte & Birmingham. Candidates should e-mail resumes to [ellen.donegan@tawinc.com](mailto:ellen.donegan@tawinc.com) or fax resumes to (813) 217-8076; AA/EOE. DFWP. [www.tawinc.com](http://www.tawinc.com)

## EGSA Job Bank Guidelines

EGSA will advertise (free of charge) EGSA Member company job openings in the Job Bank. Free use of the Job Bank is strictly limited to companies advertising for positions available within their own firms. Companies who are not members of EGSA and third-party employment service firms who service our industry may utilize the Job Bank for a \$300 fee. Blind box ads using the EGSA Job Bank address are available upon request; company logos may be included for an additional fee. EGSA reserves the right to refuse any advertisement it deems inappropriate to the publication. Please send your classified ad (limited to approximately 50 words) to: EGSA Job Bank, 1650 S. Dixie Hwy, Suite 400, Boca Raton, FL 33432. Or, send it via e-mail to: [J.Kellough@EGSA.org](mailto:J.Kellough@EGSA.org)

## Penn Power Systems

Penn Power Systems, an industry leader with power systems sales of MTU Onsite Energy products is seeking qualified sales people for central and eastern PA. Individuals need to possess a high drive to succeed and be comfortable discussing projects with engineers, contractors and end users. Penn offers a very aggressive salary and compensation package, along with benefits and the necessary sales tools to succeed. Please send resumes to [jtiffan@pennpowersystems.com](mailto:jtiffan@pennpowersystems.com)

## Generator Technicians

Due to our continued growth, Central Power Systems & Services, Inc. has immediate openings for generator technicians at several of our Missouri, Kansas and Oklahoma facilities, with immediate needs in Kansas City, MO and Wichita, KS. Ideal applicants will have working experience with diesel generator sets, gaseous generator sets, and automatic transfer switches. EGSA Certified preferred, but not required. We offer a strong base wage and a full benefit package (including FREE MEDICAL & LIFE insurance) and PAID RELOCATION, depending on experience and skill set. Fax a cover letter, salary requirements and your resume to 816-781-4518 or e-mail it to [jobs@cpower.com](mailto:jobs@cpower.com). EOE

## Rental Sales

Kelly Generator & Equipment, Inc. is seeking an experienced RENTAL SALES person to join our Team. We are a full-service distributor of emergency standby and prime power located in the mid-Atlantic region: Delaware, Maryland, Washington DC, Northern Virginia and West Virginia.

- Develop strong relationships with electrical and general contractors, home builders, event companies, industrial and commercial end users and rental houses.
- Focus will be on the rental (and sales) of mobile generator sets, as well as renting load banks.
- Sell service contracts

We offer a solid base with commission, medical, dental, vision, 401(k), profit sharing and more. Fax resumes to 410-257-5227 or e-mail [dkelly@kge.com](mailto:dkelly@kge.com)

## Sales Admin Assistant

Energy Systems N. California has opening for Sales Admin Assistant responsible for assisting sales team in rfp mining, quote preparation, bid follow up, project coordination and customer support. Must have working knowledge of generators, 2 years sales experience, computer proficiency and technical aptitude. We are an established 4th generation company offering family values and long term prospects. Email resumes to [bali@energysystem.net](mailto:bali@energysystem.net).

## Generator Technicians

Kelly Generator & Equipment, Inc., the mid-Atlantic leader in standby electrical generators is seeking experienced generator technicians. We are a full-service distributor of emergency standby and prime power located in the mid-Atlantic region that covers Delaware, Maryland, Northern Virginia, West Virginia and Washington, DC.

SALES, SERVICE, PARTS, RENTALS & TRAINING

- We offer factory training on the lines we represent, as well as "in-house" training
- Medical, Dental, Vision, 401(k), profit sharing, short and long term disability, paid holidays, annual leave, overtime and paid "On Call"

Must have a High School Diploma (Vo-tech or GED), 3 – 5 years experience servicing industrial generator sets and associated equipment. Must be able to service, repair and troubleshoot the engine, as well as the alternator end and controls of the equipment. E-mail resumes to [dkelly@kge.com](mailto:dkelly@kge.com)  
EGSA Certified Technicians Preferred.

## Generator Service Technicians

We are growing! Genset Services, Inc. is seeking qualified generator technicians for our Central and South Florida branches. Working knowledge of Diesel and gaseous engine-driven generator sets is required including service/maintenance, troubleshooting/repair of AC and DC electrical and control systems, as well as strong computer skills. Ideal candidate will have neat appearance and clean driving record. We offer a competitive compensation package, including a company vehicle, health insurance, vacation and an investment plan. Please forward your resume with cover letter and salary requirements to [keith@gensetservices.com](mailto:keith@gensetservices.com)  
EGSA Certified Technicians Preferred.

## Territory Sales Rep

Kelly Generator & Equipment, Inc., is a rapid response, full service distributor of emergency standby and prime power located in the mid-Atlantic, one of the largest demand markets for power generation in the country. We offer SALES, SERVICE, PARTS, RENTALS, TRAINING. We have an immediate opening for a Territory Sales Representative. Great opportunity and territory for the right person!

Identify, pursue, grow and close new and existing client base of:

- Electrical, Design and Consulting Engineers
- Electrical Contractors
- General Contractors
- Commercial/Industrial End Users (i.e., Mission Critical Data Centers, Healthcare Facilities, Manufacturing)

Medical, Dental, Vision, 401(k) and more.

Competitive base with commission.

Email [dkelly@kge.com](mailto:dkelly@kge.com) [www.kge.com](http://www.kge.com)

## Experienced Power Generation Technicians Wanted

Penn Power Systems, leaders in the power generation business, is actively seeking experienced field service technicians for open positions in our upstate New York and Pennsylvania locations. Candidates should be familiar with natural gas and diesel prime movers with industry experience and knowledge of systems and controls. Penn Power Systems, and its divisions, offer industry competitive salaries, medical, 401(k), and vacation benefits. All interested parties should send resumes and work history to [jobs@pennpowersystems.com](mailto:jobs@pennpowersystems.com) or call 1-877-736-4473. We Proudly Employ EGSA Certified Generator Technicians. EOE M/F/D/V

#### Senior Generator Technician

Leete Generators (California) is looking for a SENIOR GENERATOR TECHNICIAN with in-depth experience (10+ years) and knowledge of all generator components; installation, start-ups, repair, load bank testing, etc. Please do not apply if you do not have EXTENSIVE experience with back-up, industrial generators. E-mail: [l.ramsay@leetgenerators.com](mailto:l.ramsay@leetgenerators.com).

#### Generator Service Technicians

CJ's Power Systems in Florida, a distributor for MTU Onsite Energy, is currently seeking qualified technicians throughout the State. Job includes: performing planned maintenance, diagnostics, repairs, and startups of generators. Knowledgeable, computer skills, clean driving record a must. Excellent pay, medical, and other benefits. E-mail resumes: [jobs@cjspower.com](mailto:jobs@cjspower.com); fax to 352-732-0606 EGSA Certified Technicians Preferred.

#### Generator Set Sales/Service

Experienced sales/service engineer needed by southern California company to sell engine generator sets. Please respond to [J.Kellough@EGSA.org](mailto:J.Kellough@EGSA.org) (Reference PLND06JB-1).

#### Industrial Stationary Sales Manager

Key Responsibilities: Selling electronic engine management/instrumentation systems to Engine OEMs and their dealers, managing large OEM customers, support assistance of customers and distributors, assist new product specification and market research, Manage North and South American sales team. BS required. Sales experience in industrial engine business. 50% travel required. [kclark@fwmurphy.com](mailto:kclark@fwmurphy.com)

#### Generator Field Technicians

TAW® is searching for experienced Generator Field Technicians in Alabama, Louisiana and Mississippi. Duties include: inspections, repairs, services and start-up of generators & ATS. Troubleshoot generators & automatic transfer switches. Diesel engine experience desired. E-mail resume to [ellen.donegan@tawinc.com](mailto:ellen.donegan@tawinc.com). Fax (813) 217-8076.AA/EOE. DFWP. [www.tawinc.com](http://www.tawinc.com) EGSA Certified Technicians Preferred.

#### Generator Field Technician

PM Technologies, LLC has several immediate openings for generator technicians. We are located and operate in Michigan, Ohio and northern Indiana. High School Diploma or equivalent a must. Military experience a plus. Must be able to troubleshoot and repair the engine (diesel and gaseous) as well as the generator end. Customer interaction will be required on a daily basis. We need highly motivated, self-sufficient people to assist in growing our expansion efforts at new branch locations. Benefits include company vehicle, 401K, Health, Dental and Vision coverages, as well as paid bonuses for new account procurement. Fax resumes to 248.374.6408 or e-mail to [dpopp@pmtech.org](mailto:dpopp@pmtech.org) EGSA Certified Technicians Preferred.

#### Generator Technician

Full-time experienced generator field technician needed for Central Florida/Lakeland area. Applicant must have diesel engine experience and transfer switch knowledge, preferably EGSA certified. Job includes performing preventive maintenance, repairs, and startups of generators. Clean driving record a must and applicant must pass drug screening. Competitive wages and benefits. E-mail resumes to [skapparos@suregen.com](mailto:skapparos@suregen.com) EGSA Certified Technicians Preferred.

#### Generator Sales Professional

Central Power Systems & Services, Inc. – seeking generator salesperson based out of Kansas City. This position will work from our new stand-alone facility dedicated to the generator business and will be focused on promoting MTU OnSite Energy products. We offer a strong base wage, incentive program and a full benefit package (including company car, gas allowance, expense card, FREE MEDICAL insurance, FREE LIFE insurance, paid vacation, profit sharing and 401(k), etc.) and PAID RELOCATION depending on experience and skill set. Fax a cover letter, salary requirements and your resume to 816-781-4518 or e-mail it to [jobs@cpower.com](mailto:jobs@cpower.com). EOE

#### Field Service Engineer

Russelectric Inc., has immediate openings for the Northern California Region. Seeking qualified engineers with backgrounds in emergency power systems (transfer switches, switchgear, PLC's, SCADA). We offer a full benefits package, including company van, medical, dental, retirement plan. Please send your resume w/cover letter and salary requirements to [jordan@russelectric.com](mailto:jordan@russelectric.com).

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# EGSA JOB BANK

## Generator Field Service Technician

Altorfer Power Systems, Caterpillar Distributor for the Midwest, has an exciting opportunity for the right person to join our service team! Positions open in Eastern Iowa and Central Illinois. Perform diagnosis, repairs, and maintenance on Caterpillar, Cummins, Kohler, GENERAC and other makes of Electric Power Generation equipment. This includes switchgear and electrical controls. Prior experience required. PC skills and excellent customer service skills a must. Great pay and benefits.

Website: [www.altorfer.com](http://www.altorfer.com) Please apply online or e-mail resume to [power@altorfer.com](mailto:power@altorfer.com)

## Regional Field Service Manager - Western States

### West Region - Mainly: WA, OR, CA, NV, AZ, CO, UT, OK, NM

#### Magnum Power Products, LLC

Magnum Power Products, leader in the industry has an immediate opening for a Regional Field Service Manager. Field Service Manager, working with the Regional Sales Manager(s), will ensure customer satisfaction on all levels of business with Magnum Power Products in their respective territory.

For more information on Magnum and the opportunities visit website at [www.m-p-llc.com](http://www.m-p-llc.com) and/or send resume to [hr@m-p-llc.com](mailto:hr@m-p-llc.com).

## Sales Representatives

TAW® Power Systems, the Kohler Generator Distributor for the Gulf Coast, is adding to our sales force in FL, AL, MS & LA for industrial & service sales. E-mail resumes to [ellen.donegan@tawinc.com](mailto:ellen.donegan@tawinc.com) or fax 813-217-8076. DFWP AA/EOE. [www.tawinc.com](http://www.tawinc.com).

## Regional Sales Manager - NW

### NW Region - Mainly: AK, WA, OR, ID, and Parts of BC & MT

#### Magnum Power Products, LLC

Magnum Power Products, leader in the industry has an immediate opening for a Regional Sales Manager. Sales Managers are responsible for planning, coordinating and managing all sales related activities in their assigned region. They will establish effective business relationships to increase sales revenues and customer accounts, build market share, sell the full Magnum product line and ensure total customer satisfaction.

For more information on Magnum and the opportunities visit website at [www.m-p-llc.com](http://www.m-p-llc.com) and/or send resume to [hr@m-p-llc.com](mailto:hr@m-p-llc.com).

## Regional Field Service Manager

Join the industry's fastest growing Light Tower, Generator, Water Trailer and Diesel-powered Pump Company. Our team is dedicated to providing the best solutions, customer service and technical support in the industry.

A working knowledge of mechanical design and electronics required; strong communication and trouble shooting skills preferred. Compensation and benefit package include: base salary + commission, medical, dental, vision, 401K and vehicle. Extensive travel is required.

Western Region - WA, OR, CA, NV, AZ, CO, UT  
Gulf States Region - OK, AR, LA, TX, NM  
Please send resume to [j davids@m-p-llc.com](mailto:j davids@m-p-llc.com) or  
Attn: Julie Davids 215 Power Dr. Berlin, WI 54923  
[www.m-p-llc.com](http://www.m-p-llc.com)

## FW Murphy, Tulsa, Oklahoma

### Industrial Stationary Sales Manager

Key Responsibilities: Selling electronic engine management/instrumentation systems to Engine OEMs and their dealers, managing large OEM customers, support assistance of customers and distributors, assist new product specification and market research, Manage North and South American sales team. BS required. Sales experience in industrial engine business. 50% travel required. [kclark@fwmurphy.com](mailto:kclark@fwmurphy.com).

## Regional Service Sales Consultant

Kentech is a world class leader in Power Generation and we are seeking an experienced Texas regional service sales consultant. This is a great opportunity for an aggressive person, looking for upward mobility in a growing company. Location: San Antonio or Houston TX. Interested candidates should send their resume @ [jobs@kentechpower.com](mailto:jobs@kentechpower.com) or by fax to 210-946-2473.

## Pump Product Manager

Join the industry's fastest growing Light Tower, Generator, Water Trailer and Diesel-powered Pump Company. Our team is dedicated to providing the best solutions, customer service and technical support in the industry.

This position is responsible for the development, planning and marketing of new product and product enhancements for Magnum's Pump line. This will involve managing all aspects of the product lifecycle, defining product vision, gathering and prioritizing product and customer requirements. This position will ensure pump performance is inline with customer expectations, revenue goals and overall company strategy and objectives. Complete benefit package offered.

Please send resume to [j davids@m-p-llc.com](mailto:j davids@m-p-llc.com) or  
Attn: Julie Davids 215 Power Dr. Berlin, WI 54923  
[www.m-p-llc.com](http://www.m-p-llc.com)

## Sales Engineer

Western Branch Diesel, Inc., established in 1946, is looking for an experienced candidate in the Power Generation Industry with sales engineering background to sell and manage large accounts in the construction industry. This position is for Sales Engineer in Northern Va. area. Responsibilities include establishing new relationships with large accounts including end users, electrical and general contractors, and consulting engineers to grow the Power Generation Division.

Call for additional information. Please send resume to [salesposition@wbdiesel.com](mailto:salesposition@wbdiesel.com) or 12011 Balls Ford Road Manassas, VA 20109.

## Generator Service Technician

Antilles Power is seeking a highly motivated, self-sufficient candidate for our Caribbean, Virgin Islands locations. Duties include: Preventative Maintenance, Troubleshooting, Commissioning, Diagnostics, repairs of Generators and Automatic Transfer Switches. Diesel engine and marine experience required. Drug screening and clean driving records are prerequisites. Computer knowledge and **EGSA Certified Technician Preferred**. E-mail resume with references and salary requirements to [m.torres@antillespower.com](mailto:m.torres@antillespower.com)

## Generator Service Technicians

### Prime Power Services, Inc.

Growing company is seeking qualified candidates in the Raleigh, Charlotte, Columbia area- with 3-5 years of experience in the power generation field, skilled in both mechanical and electrical applications having knowledge in troubleshooting, maintenance/repair for gensets ranging from 5-2000 KW w/associated fuel systems, switchgear, transfers and controls. Must pass a criminal background/drug screen, experience w/UPS systems, and other EPSS systems.

Please forward your resume with cover letter and salary requirements to [ccernut@primepower.com](mailto:ccernut@primepower.com)  
**EGSA Certified Technicians Preferred.**

## Generator Tech, Class A

Seeking a "Class A" generator technician in the Birmingham, AL area. 15 years of experience in diesel power generation industry required. Responsible for start up, commissioning, troubleshooting and maintenance on a variety of diesel and gas power generation sets and their control systems, including ATS and switchgear. Must be able to diagnose and repair power generators in-house and in the field, using technical expertise and diagnostic equipment. Must be willing to work in a team environment. Some overnight travel with occasional extended travel required. To apply email resume to [awallace@maegen.com](mailto:awallace@maegen.com). **EGSA Certified Technicians Preferred.**

## Project Engineer

Energy Systems N. California has opening for a Project engineer to provide support to our sales team and engineering customers. PE to carry out sizing and technical specification reviews and produce final quotes of generators. Must have business skills. Manage entire process from submittals to delivery and startup. We are an established 4th generation company offering family values and long term prospects. Email resumes to [bali@energysystem.net](mailto:bali@energysystem.net).

## Equipment Sales

Kentech Power is looking for a full-time power generation equipment salesperson. Potential candidates should possess previous sales experience, preferably in the power generation equipment field. They must be highly motivated and customer focused. They must be willing to work in the San Antonio / Austin area. Interested candidates should send their resume @ [jobs@kentechpower.com](mailto:jobs@kentechpower.com) or by fax to 210-946-2473.

## Generator Field Technician-Experienced

ACF Standby Systems seeks full-time experienced generator field technicians for openings in the Orlando/Miami, FL areas. Requires advanced knowledge of standby generator systems. Minimum 5 years experience. Working knowledge of 12 & 24 VDC controls. Company offers a full comprehensive benefits package. Competitive wage, company vehicle, laptop and cell phone for qualified candidates. Send resumes to [careers@acfpower.com](mailto:careers@acfpower.com) or fax to HR at 813-621-6980. **EGSA Certified Technicians Preferred.**

## Generator Sales

Energy Systems Generac Distributor for N. California has immediate opening for seasoned sales professionals for our SFO Bay area and Sacramento territories. Must be knowledgeable in power generation, self starter with business development skills. We are an established 4th generation company offering family values and long term prospects. Email resumes to [bali@energysystem.net](mailto:bali@energysystem.net).

## INDUSTRY NEWS

### Kohler Power Systems Names New Vice President Of Sales

David Brown was promoted to Kohler® Co.'s Vice President of Sales for the company's Kohler Power Systems Americas division.

Brown directs all North American sales activities of industrial generator sets, electrical controls, switchgear and automatic transfer switches, through direct sales, national accounts and distribution channel partners. He partners with marketing to create promotional programs and training tailored to specific customers.

He joined Kohler Power Systems in 2008 as the Director of Industrial Solutions and National Accounts. He earned his bachelor's and master's degrees in mechanical engineering from Memphis State University. He also holds an MBA from Marquette University.

Visit [www.kohlerpower.com](http://www.kohlerpower.com) for more information. ■



### Steve Evans named Chief Technical Officer for DEIF A/S

Steve Evans, CEO and General Manager for DEIF, Incorporated for the past 5 years, has been named Chief Technical Officer for the parent company, DEIF A/S in Skive, Denmark.

As Chief Technical Officer, Steve will be focused on DEIF's bright future: new products, internal and external training, documentation, agency approvals and related projects. In addition, Steve will be involved with promoting the industry through various domestic and international associations including Electrical Generating Systems Association, to which he was recently elected to the Board of Directors. Steve and his wife, Nancy, will be moving to Skive in the near future.

Visit [deif.com](http://deif.com) for more information. ■



### Jeff Custer has joined DEIF Incorporated

Jeff Custer has joined DEIF Incorporated as CEO and General Manager. Jeff has been in the energy and power industry for over 30 years and joins us from Kohler Power Systems where he was a member of the executive team and held the position of Vice President Sales and Service. Jeff previously was an executive at Duke Energy and has held various positions at Alliant Energy and NiSource. Jeff has had extensive experience leading companies in the power equipment, energy services and alternative energy industries and will be using his experiences in these areas to expand DEIF Inc.'s position in North America. Jeff and his family will be moving to the Loveland, Colorado area in the near future.

Visit [deif.com](http://deif.com) for more information. ■



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### MIRATECH Announces Two Key Sales Additions

MIRATECH, a worldwide leader in providing innovative emissions solutions for industrial engines, has named Michael D. Cronkhite an Account Manager for the company's Gas Compression Division and Mike Hobbs its Sales Administrator for the company's Customer Support Department.

Michael Cronkhite will manage MIRATECH gas compression accounts in the Marcellus Shale region and will be based out of the company's headquarters in Tulsa.

Cronkhite brings 10 years of application engineering experience to his new position at MIRATECH. Prior to joining MIRATECH, Cronkhite was a Lead Application Engineer for Mercury Marine Corporation providing on-site product integration and technical sales support to boat manufacturers in the Mid-West United States.

Cronkhite is a graduate of Oklahoma State University with a Bachelor of Science degree in Mechanical Engineering Technology as well as a Masters degree in Business Administration.

Mike Hobbs will provide smooth coordination of inside and outside sales activities and act as a liaison between engineering, sales and the customer to give support, service and responsive communication over a wide range of project requirements. Hobbs brings more than 10 years of business to business account management and sales experience to his new position. Prior to joining MIRATECH Hobbs was a Steel and Metals Sales Specialist with HILTI Corporation with numerous achievements in sales performance, internal program coordination, training and mentoring.

Hobbs is a graduate of Oklahoma State University with a Bachelor of Science degree in Marketing.

Visit [miratechcorp.com](http://miratechcorp.com) for more information. ■

### Hawthorne Cat Promotes David Ness to Vice President of Sales & Marketing

David Ness has been promoted to Vice President of Sales and Marketing for all the Hawthorne divisions. He recently celebrated his ten-year anniversary with Hawthorne.



He worked early in his career helping Hawthorne with the successful implementation of 6 Sigma throughout the organization before beginning his management career at Hawthorne Power Systems in San Diego. Under his leadership, the power division hit record profitability targets even through the most difficult of economic times over the last few years. Additionally, Dave has been responsible for the successful development and implementation of Hawthorne's corporate strategy plan, which began in 2008. In the last year, he has also assumed responsibility for business development

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## INDUSTRY NEWS

and corporate marketing groups, growing and developing the marketing team into a valuable part of Hawthorne's sales efforts. In his new role, he will move to the corporate office located in Rancho Bernardo and have management responsibility for all general sales, rental, marketing and power systems sales managers.

### Hawthorne Hires Kirk Fowkes as new Power Systems General Manager

Hawthorne Power Systems has hired Kirk Fowkes as the new General Manager to replace David Ness. Kirk will have overall management responsibility for the power divisions in San Diego, Hawaii and the Pacific Region. Kirk has extensive experience in leading high performance teams in the engine distribution and energy business with which he has been involved for over 25 years. He held senior management positions at Shepherd Machinery over a fifteen year period prior to Quinn's acquisition of that dealership. After five years as General Manager for Cummins West covering California and Hawaii, Kirk left to help start Elite Energy Systems.

Visit [www.hawthorne.com](http://www.hawthorne.com) for more information. ■



### Evans Cooling Systems, Inc. Announces Agreement with South African firm, Corrosion and Scale Control

Evans Cooling Systems, Inc. is pleased to announce an alliance with Corrosion and Scale Control (CSC) in Cape Town, South Africa. With this newly formed alliance, CSC has formed Evans Cooling Systems (Pty) Ltd (Evans SA) to market the Evans range of waterless engine coolants throughout the Southern African region.

Evans initially developed and patented waterless engine coolants to solve overheating problems in high performance applications. Their recent expansion into the heavy duty diesel industry, and stationary engines has provided fuel saving strategies and increased performance capabilities. Evans coolants also reduce maintenance costs, never need replacement, and are environmentally friendly.

Corrosion and Scale Control manufactures and distributes coolants/antifreezes, corrosion inhibitors and other quality products for the automotive, trucking and heavy duty markets. Their products have been distributed throughout the Southern African region for over four decades. The Company has always focused on corrosion inhibitors for engines, and Evans' corrosion free waterless coolant technology provided the natural and logical progression of product development for the future.

Evans SA ([www.evanscooling.co.za](http://www.evanscooling.co.za)) will market the waterless coolants to the automotive, agricultural, mining, construction, manufacturing and trucking fleets in the sub-Saharan region. As one of the largest mining regions in the world, there is a high demand to keep expensive equipment more productive and economical. Evans waterless coolants have proven to reduce downtime, save fuel, and keep equipment lasting longer and Evans SA has already experienced a high demand for the technology from these sectors.

In addition, Evans and CSC will be working to assist their customers' efforts in reducing fuel consumption and CO2 emissions.

Please visit [www.evanscooling.com](http://www.evanscooling.com) for more information. ■

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\* Results reflect the opinions of more than 300 engineers polled in a recent Webcast exit survey.

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